



## At All-Hands meeting Monday

# Marshall employees review plans for reorganization

**M**arshall Center employees reviewed plans Monday for a reorganization of the Center.

The review was part of an all-hands meeting conducted in Morris Auditorium in Building 4200 and broadcast on Centerwide television.

Center Director Art Stephenson hosted the meeting that featured briefings on four newly created directorates and a new Systems Management Office. Stephenson originally announced plans for the reorganization on Jan. 29.

During Monday's meeting, leaders of each Marshall organizational development team presented the status of their assigned portion of the reorganization. The presenters included:

**Jim Kennedy**, Engineering Directorate, responsible for cross-cutting engineering

disciplines supporting the program directorates.

**Rick Bachtel**, Space Transportation Directorate, responsible for all space transportation programs, projects and research except Space Shuttle operations.

**Axel Roth**, Flight Projects Directorate, responsible for all Space Station and operations projects and functions, as well as future programs not related to the Space Transportation or Science directorates.

**Jack Bullman**, Science Directorate, responsible for all microgravity, optics, Space and Earth science programs, projects and research.

**Bill Kilpatrick**, Systems Management Office, responsible for assessing systems requirements, overseeing program and project compliance to requirements and independent cost analysis.

The briefing charts that each development team leader presented were posted on the Inside Marshall home page following the all-hands meeting. In addition, the Marshall Star will publish a series of articles in coming weeks that will include interviews with each organizational team leader and a detailed look at the organizational structure each team has proposed.

In his review of the reorganization, Stephenson focused on the Marshall mission "We bring people to space. We bring space to people." That theme, he said, reflects the motive for the reorganization at the Center. "What we are about here is an organization that does a good job of this, and we're talking about an organization that I believe will help us be more effective in this mission."

*See All Hands on page 2*

## Lockheed delivers X-33 liquid oxygen tank to Marshall

**L**ockheed Martin Michoud Space Systems delivered the X-33 liquid oxygen tank structural test article last month to the Marshall Center. It will undergo a series of structural tests to verify the tank design for the X-33 flight test program.

The dual-lobed aluminum tank weighs 6,700 pounds and is 26 feet long, 19 feet wide and 12 feet high. The tank was transported by barge for the five-day trip from the Michoud Assembly Facility in New Orleans.

This is the second X-33 liquid oxygen  
*See X-33 on page 4*

**"Marshall Safe Space Flight Center"**

— Safety slogan submitted by  
**Gary Turner, ASRI**



Photo by Doug Stoffer

## Patriotism means U.S. Savings Bonds

As part of the Greater Huntsville U.S. Savings Bond Campaign Workshop, awards were presented at Marshall Monday for patriotic service in support of U.S. Savings Bonds. Danny Hightower, left, director of Marshall's Human Resources Office, presents an award to Skip Vaughn, editor of the Arsenal's "Redstone Rocket." Hightower is assisted by "Uncle Sam," also known as Ed Snell of The Boeing Co.



## Stephenson encourages employees to think 'safety,' Marshall's No. 1 goal

**M**arshall Center Director Art Stephenson Monday once again encouraged employees to raise their level of consciousness regarding safety.

"Safety, as you know, is our No. 1 goal and is something we take very seriously," Stephenson said. "We could put a lot of programs and processes in place, and we probably will do some of that. But the bottom line is that we need to think seriously about safety."

Referring to flight safety on the Space Shuttle, Stephenson said, "Cost is not an issue. We've got to do the right thing." Safety at work and at home means "raising consciousness," he said.

He illustrated his point by sharing the story of a DuPont manager who kept encouraging his daughter to wear her seat belt while driving. A week after his daughter began to comply, she was involved in an accident. The seat belt she wore was credited with saving her life.

"This manager said safety is not a program or a process we do at work. It is my daughter's life," Stephenson said.

"Here at Marshall, we had an employee who jumped off a high place, probably only 2 or 3 feet, and his hand with his ring finger caught and he lost his finger," Stephenson said. Such accidents, he added, are preventable when people approach safety with a different attitude.

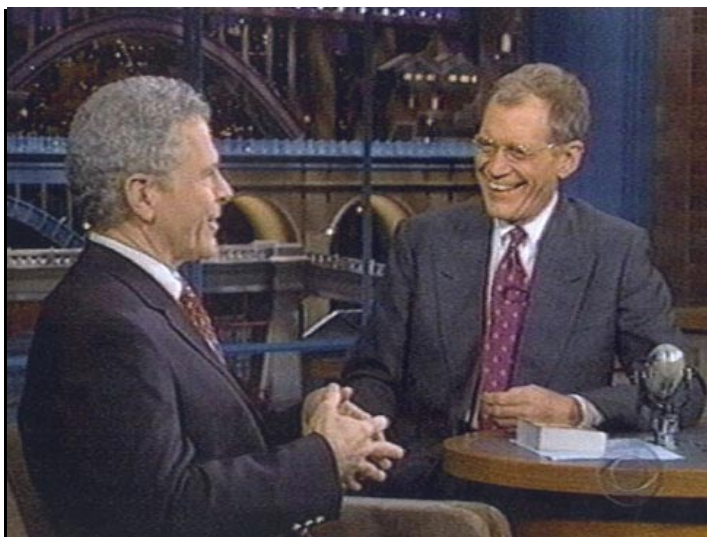
"Raise your level of consciousness," he said.

## Marshall retiree, author Hickam is 'hero,' says Stephenson

**H**omer Hickam has become a hero within our community," Marshall Center Director Art Stephenson said Monday, referring to the now-retired Marshall engineer whose book, "The Rocket Boys" has recently been released as a movie entitled "October Sky."

Stephenson closed Monday's all-hands meeting with employees by showing a clip from Hickam's appearance last week on

See **Hickam** on page 4



Letterman, right, tells Hickam: "I want to live in Rocket City U.S.A.!"

## Stephenson says thanks for successful ISO audit

Center Director Art Stephenson expressed his appreciation Monday to employees for the successful ISO 9001 audit conducted last week at the Center.

"One of the things that is involved when we talk about process improvement is understanding how we do business, and our ISO process gives us that definition," said Stephenson. "We were audited last week. It wasn't a total audit. It was a partial audit. But we came through it with flying colors, and I thank the team for doing that," he said.

The three-day audit involved registrars from National Quality Assurance, who recommended the Marshall Center for continued registration to ISO 9001, the quality management system of the International Organization for Standards.

## All Hands meeting

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Both Stephenson and Center Deputy Director Carolyn Griner expressed appreciation to the team leaders and members of the teams involved in planning the reorganization.

"I know a lot of people would like to think the hard work is done, but it's

just getting started," Griner said. Griner outlined what she called the "reorganization formulation" and the "new organization implementation."

As part of the formulation process, she emphasized the need to remember safety. She said performance awards will be processed within existing organizations, and current organizations and supervisors

**"...we're talking about an organization that I believe will help us be more effective in this mission."**

**—Art Stephenson**

will do performance evaluations for this year. As the new organization is implemented, new Center processes will be instituted by May 23. New time and attendance certification will be implemented by June 7. The FY00 MSFC Implementation Plan will be prepared by July 8.

Additional milestone dates regarding the reorganization include:

March 22 — Staffing plan complete  
April 5-May 23 — Process individual personnel actions  
April 26 — Personnel move plan  
April 28-Sept. 30 — Personnel moves.

"This is a great organization," Stephenson said. "I am very pleased with how the reorganization came out. I want to say, though, that any organization that one puts together is only as successful as the folks who are part of the organization. Lines and boxes don't make it work. People make it work."



## Thiokol Propulsion, Hernandez Engineering are winners

# Marshall honors 2 firms for 'Contractor Excellence'

by Tracy McMahan

**T**hiokol Propulsion of Utah and the Huntsville division of Hernandez Engineering Inc. are winners of the 1998 Contractor Excellence Award presented by the Marshall Center.

The annual award — designed to recognize outstanding contributions contractors make to the Marshall Center — is presented to prime contractors, subcontractors and suppliers. It may be awarded in four categories to recognize outstanding product and service performance in large and small businesses.

"The hard work and outstanding accomplishments by both these companies have contributed significantly to Marshall's role as NASA's lead center for space transportation," said Marshall Center Director Art Stephenson.

Stephenson presented the award in the Large Business - Product category to Thiokol Wednesday during a special ceremony at its facility in Promontory, Utah. That is where Thiokol builds the reusable solid rocket motors that help propel the Space Shuttle into orbit.

"The people of Thiokol Propulsion are key members of the Marshall team, and we are proud to honor their outstanding achievements and their uncompromising focus on safety and quality in their support of the Space Shuttle Program," said Stephenson.

Hernandez Engineering Inc., winner in the Small Business-Service category, has its corporate office in Houston, Texas. Its Marshall Center division supports NASA Safety and Mission Assurance activities. Stephenson presented the Contractor Excellence Award to Hernandez Engineering during a ceremony at Marshall on Feb. 22.

"Hernandez Engineering has helped the Marshall Center provide reliable space transportation and has promoted safety throughout Marshall," said Stephenson. "We are proud to have this outstanding company working side by side with us on-site here at Marshall."

The Contractor Excellence Award is for significant contributions to Marshall's mission over a three-year period. Award recipients are selected based on contract

performance and customer satisfaction; schedule; cost; long-term organizational initiatives that respond to the Center's strategic aspirations; leadership and continuous improvements; innovative management and technology breakthroughs; and items of special interest to Marshall.

Recipients of the Marshall Contractor Excellence Award next become nominees for NASA's prestigious George M. Low Award. This award recognizes suppliers who demonstrate sustained excellence and outstanding achievements in quality management.

Thiokol Propulsion — a division of Cordant Technologies Inc. in Salt Lake City, Utah — has been named one of two finalists in the Large Business-Product category for the 1999 Low Award. The winner of the Low Award will be announced April 22 at the annual NASA Continuous Improvement Reinvention Conference in Washington, D.C.

*The writer, a contractor employed by ASRI, supports the Media Relations Office at Marshall.*

### ***What does the phrase 'We bring people to space, we bring space to people' mean to you?***



**Johnnie Wilson**  
*Scientific and  
Commercial Systems  
Corporation*

"NASA is the medium through which the American people vicariously explore new frontiers in space. It's also the means of making the unknowns of space known to us in ways we never knew possible."



**Gloria Barnes**  
*Imaging Services,  
Wang*

"We provide a way for people to get to space. It's a global experience. The things they are doing are exciting. I'm surprised that in my lifetime I'm seeing results from those experiments that have flown on the Shuttle. I can only imagine what the Space Station will bring."

## X-34 arrives at Dryden for tests

**T**he X-34 technology-testbed demonstrator, structural test article arrived last week at NASA's Dryden Flight Research Center, Edwards, Calif., for ground testing and Federal Aviation Administration (FAA) certification of its L-1011 mothership.

The X-34 will be powered by the Fastrac engine, which is currently in design and development at the Marshall Center. Fastrac is a single-stage main engine, which burns a mixture of liquid oxygen (LOX) and kerosene (RP-1).

The X-34 project is part of NASA's Office of Aero-Space Technology, which oversees NASA's efforts to develop the technology to dramatically reduce the cost of access to space.

The program is managed for NASA by Marshall.

The structural test article consists of the X-34's airframe. It was shipped from Orbital Sciences Corporation's facilities in Dulles, Va., in two separate trucks — one for the fuselage and another for the wing. The first vehicle will be assembled at Dryden before undergoing ground vibration tests, which ensure that there are no potentially hazardous vibrations during flight. The L-1011 will undergo ground vibration tests as well, both alone and mated to the X-34.

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# Hickam

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David Letterman's "Late Show."

The Center Director noted the references that Hickam made to the Marshall Center and NASA in the television interview. He said he was impressed by the content of the movie that portrays Hickam's childhood in Coalwood, W.Va., and his mission to build and launch his own homemade rockets with the help of his loyal band of friends.

Hickam retired from Marshall after serving as a payload training manager for the International Space Station.

"If you haven't seen this movie, I'd recommend you take a look at it," Stephenson said.

A portion of the Letterman interview focused on Hickam's respect and admiration for Dr. Wernher von Braun, the first director of the Marshall Center:

**Hickam:** I missed him (von Braun) my whole life. When I came to work for NASA he had just left for NASA Headquarters.

*"If we could get some backing for the propulsion drives at the Marshall Space Flight Center, I think in 10 years we could field one of these units, and we could just open up the solar system for the planet."*

**—Homer Hickam**  
**On Letterman's "Late Show"**

But now many of the members of his team live in Huntsville, Rocket City U.S.A., and I count them as my friends.

**Letterman:** I want to live in Rocket City U.S.A.!

**Hickam:** ... I was just over there the other day talking to the propulsion engineers at NASA and they are starting to cut metal on some brand new propulsion machines. I don't even want to call them rocket engines any more. They are really great new drives like fusion energy and anti-matter energy. We're talking about some new drives that will allow us to go to the Moon in hours vs. days and out to Mars...

**Letterman:** Come on Homer. Come on. How naive do you think we are?

**Hickam:** I'm serious. If we could get some backing for the propulsion drives at the Marshall Space Flight Center, I think in 10 years we could field one of these units, and we could just open up the solar system for the planet. It seems to me that now is the time for this country to enter into a great debate over whether we want to go out and settle the solar system, because we're ready to go. You know the way to get something done is to give a small team of Americans an impossible job and not enough money to do it and a time frame in order to accomplish it. Give them a deadline, and they'll do it every time.

**Letterman:** And then get everybody behind it rooting for them, and it becomes kind of a national cause and gets everybody's attention and focuses everybody.

**Hickam:** And, I think everybody would be right behind them. I really do.

## X-33 Tank

*Continued from page 1*

tank delivered by Lockheed Martin. The first, completed last year, is at the X-33 assembly facility at the Lockheed Martin Skunk Works in Palmdale, Calif., where the flight vehicle is being assembled. Test flights for the X-33 are scheduled to begin next year.

The X-33 is a subscale demonstration vehicle that will test new technologies necessary for a full-scale operational VentureStar™, a completely reusable, single-stage-to-orbit launch vehicle. Designed to make space more affordable and more commercially accessible, VentureStar™ will launch vertically and land like an airplane.

Michoud Space Systems, located in New Orleans, La., designs and assembles welded and composite pressurized tanks for aerospace applications including the Space Shuttle External Tank, the X-33/ VentureStar Reusable Launch Vehicle, the Kistler D-1 Reusable Launch Vehicle and related projects.



Photo by Dennis Olive

### ***Solid Rocket Boosters begin new journey***

The Solid Rocket Booster artifact at the U.S. Space & Rocket Center is lifted from the Shuttle display Tuesday for removal of the forward assembly. The forward skirts, a component of the forward assemblies, are being reconditioned for reflight. The forward assemblies removed will be replaced with mockups which represent the flight configuration.



## Upcoming Events

### Annual Retiree Dinner set for March 23

Marshall's Annual Dinner honoring Marshall Center retirees will be held Tuesday, March 23 at the Von Braun Center. A social will begin at 6 p.m., followed by dinner at 7, and entertainment at 8 p.m.

Entertainment, by Marshall Center managers, employees and on-site contractors, will feature "The Beach Boys," "A Chorus Line," "Mr. Big Stuff" singers, "Grease" dancers and "The Temptations." Ticket cost is \$15, and may be purchased from administrative officers until noon March 18.

### Griner to be honored by Girls Inc.

Marshall Center Deputy Director Carolyn Griner will be honored Thursday, March 18, at the Marriott Hotel during a luncheon hosted by Girls Incorporated of Huntsville. Griner will receive the "She Knows Where She's Going Award." The award honors women of achievement who, in their personal and professional lives, serve as role models to girls. Ticket cost is \$25 and may be purchased by calling 851-9911.

### National Forum on Future Development of Space set March 16 in Washington

The Marshall Center has teamed with NASA Headquarters and the U.S. Chamber of Commerce to hold a one-day forum on space development at the Chamber Headquarters in Washington, D.C., March 16. NASA Administrator Dan Goldin will speak. More information and registration materials may be found at the following Web site: <http://www.uschamber.org/intl/space/>



Photo by Danny Reeves

**Robin Henderson, left foreground, Microgravity Research Program deputy manager, congratulates Tom Smith, center, and Dwayne Collins, right, for their outstanding performance during the ISO 9001 audit.**

## Microgravity Research Program Office 'happy' about ISO 9001

By Julie Bassler

**T**he Microgravity Research Program Office approached the recent ISO 9001 Surveillance Audit with "happy faces." At an ISO 9001 preparation meeting, Tom Torres, the program configuration management secretariat, ignited the Microgravity Program ISO campaign with his slogan "ISO Happy." The Microgravity Program then adopted the "smiley face" as its ISO 9001 mascot to capture the spirit of the new "ISO Happy" slogan.

Smiley faces, cartoons and caricatures of the program management were posted throughout the office to provide humorous, yet valuable reminders of the Feb. 22 ISO audit.

Prior to the audit, the Microgravity Program held three All-Hands meetings, conducted three days of internal self evaluation, and held an all-day stand-down to train and encourage employees to review and become compliant with ISO 9001 requirements.

The Microgravity Program celebrated the ISO 9001 successful surveillance audit with an awards ceremony on February 25. *The writer is an ISO 9001 representative for the Microgravity Programs Office.*

## NASA Alumni League Dinner Set

The next NASA Alumni League event, a buffet dinner, will be Thursday, March 11 at Valley Hill Country Club in Huntsville. Ticket cost is \$16.

Mail checks payable to NASA Alumni League—MSFC Chapter to Ed Buckbee, 811 Esslinger Road, Huntsville, AL 35802. For more information contact Buckbee at 881-9622 or Norman Schlemmer, membership chairman at 881-2938 or e-mail: Schlemmer at norms@hiwaay.net

## X-34

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"We are excited to be part of the X-34 team. We are pleased to be able to make a contribution to this project that adds to Dryden's legacy in test flight," Dryden X-34 project manager Dave Bushman said.

Once ground tests are complete, the X-34 will make six or seven captive-carry flights mated to the L-1011. This will allow the FAA to approve modifications made to the L-1011 to enable it to carry the X-34, a much larger vehicle than the L-1011's normal Pegasus Launch Vehicle payload.

Certification flights will take place in Edwards Air Force Base, Calif., airspace with Dryden providing hangar space, fuel and control room facilities.

Once certified, a separate X-34 flight vehicle will be transported to the U.S. Army's White Sands Missile Range, N.M., where the first portion of the planned 27 flight tests will be conducted. Once the X-34 has demonstrated safe and reliable performance at White Sands, the project plans to move to Kennedy Space Center for the remainder of the test flights.



## Employee Ads

### Miscellaneous

- ★ Ballroom dance shoes; men's 5-eye black leather, size 9, \$25; men's 5-eye black patent leather, size 9-1/2, \$25. 464-9910
- ★ Hercules 26" 3-speed English bicycles, men and women, \$25 and \$30. 534-2368
- ★ Exercise bike; couch/bed; loveseat; two chairs; coffee table, two end tables. 881-5897
- ★ Adobe Photo Shop, full up version 3.0 for Windows, new, unopened box, \$500. 881-2351
- ★ Packer Bell computer, 520 MB hard drive, 3-1/2 floppy drive, 40 MB Ram. 379-2174
- ★ Evenflo ULTARA I carseats, \$25; Gerry booster carseat, \$25; Graco stroll-a-bed, \$40; Maxon RD-1 radar detector, \$40; jogging stroller, \$50. 880-7305
- ★ Maple Shaker-type bedframe, twin, \$200; twin trundle frame, \$200; two new twin mattresses, \$50 each. 539-3284 after 5:30 p.m.
- ★ Drafting table/desk, tilt top, \$20; drafting machine, new, includes rulers, \$125. 881-6688
- ★ Tow hitch for '84-'99 Jeep Cherokee, \$75. 922-5727
- ★ GW2K computer, 100MHz 486, 15" monitor, 2GB HD, modem, Panasonic printer, tape B/U, \$500. 837-0418
- ★ Kenmore clothes dryer, \$100. 351-1204
- ★ Foley saw sharpening equipment, Sharp Master 375, automatic power setter 392, hand saw retoucher 385, \$2,000. 387-2992
- ★ Gravely riding mower, three blade, 48", high and low range, gear driven, \$300. 721-1052

### Vehicles

- ★ 1991 Chrysler New Yorker Fifth Avenue, V6, automatic, all power, less than 55K miles, \$5,000. 852-6334
- ★ 1993 Cherokee jeep, 4WD, PS/PW/PB, 46K miles, black, new tires, AM/FM cassette, \$10,300. 461-0903
- ★ 1988 Honda Accord, LXI, 5-speed, 145K miles, \$4,000 obo. 751-0682
- ★ 1987 Mazda 626 LX, 4-door, 5-speed, 135K miles, tilt, cruise, air, all power, \$2,500.

721-9601

- ★ 1996 bright red T-Bird, 52K miles, V-8, AT, CD, moonroof, velour upholstery, \$11,900. 232-1050
- ★ 1996 Pontiac Transport, 7/8 passenger, cruise, PDL/PW, \$10,500. 654-6225
- ★ 1998 SVT Contour, V-6, 5-speed, leather, CD, moonroof, anti-theft system, maintenance records, \$17,500. 859-3686
- ★ Honda Civic CRX-Si, 105K miles, radio w/ CD, power, sunroof, \$5,900. 882-6861

## Center Announcements

✦ **MARS Tennis Club** — The MARS Tennis Club is holding a membership drive and league sign-up through March 15. NASA employees, retirees, on-site contractors and family members are eligible. For more information or to receive a membership package, **contact** Amy Hemken at 544-7097 or e-mail to: amy.hemken@msfc.nasa.gov

✦ **Human Resources Survey** — Marshall Center employees are asked to answer a short survey on how they view NASA human resources and payroll activities in the next millennium. The survey, part of the Integrated Financial Management Project, is posted on the Inside Marshall Web page under the information topic "headlines." The results will be used as input when replacing computer software for the NASA personnel/payroll system.

✦ **MARS Golf Club** — The first 1999 MARS Golf tournament is March 13 at the Huntsville Municipal Golf Course. The format will be handicap. Entry deadline is March 5. The entry fee is \$4 and open to all NASA employees, retirees and on-site contractors. Entry contacts are: Lee Foster at 544-1589, Joey Butler at 544-3808 and Bill Galloway at 544-0558. For more information, **contact** P. McKinnon at 544-0579.

✦ **Walk-a-Thon team needed** — Marshall's Equal Employment Opportunity Office is seeking five team members to represent the Center during the Sickle Cell Anemia Walk-a-Thon Saturday, May 22. Center employees and on-site contractors are invited to

participate in the event, sponsored by the North Alabama Sickle Cell Foundation Inc. Interested employees may e-mail to: jeneene.sams@msfc.nasa.gov

✦ **Technical Conference** — The 4th annual Technical Conference of the Association for Configuration and Data Management will be held March 29-April 1 at the Renaissance Waverly Hotel in Atlanta, Ga. The conference theme is "The New Paradigm — Thinking Out of the Box." Complete details of the conference may be found at <http://www.acdm.org>

For more information, **contact** Brenda Sutherland at 544-6552; or Brenda Kyle at 955-1589.

✦ **AFGE Local 3434** — The American Federation of Government Employees Local 3434 will hold its monthly meeting at 11:30 a.m., March 9 in Building 4200, room 815.

✦ **Space Week** — Carl McNair, founder and chairman of the Dr. Ronald E. McNair Foundation, will speak March 8 at 1 p.m. during Space Week in the School of Business Multipurpose Room at Alabama A&M University. McNair is the brother of the African-American astronaut killed aboard the Challenger Space Shuttle. For more information **contact** the A & M office of Research and Development at 851-5675.

✦ **United Negro College Fund** — The 21st Annual United Negro College Fund banquet will be held Thursday, April 1 at the Von Braun Center North Hall. Guests for the event will be Melba Moore and Deniece Williams. Ticket cost is \$40 for general admission and \$25 for students. **Contact** Willie Love in the Marshall Equal Opportunity Office for tickets and additional information.

✦ **Spacelab Accomplishments Forum** — NASA is sponsoring a Spacelab Accomplishments Forum at the National Academy of Sciences in Washington, D.C., March 10 and 11. The forum will highlight the research history and achievements of the Spacelab mission series and its role in the evolution of space-based research toward the International Space Station era. For more information **contact** John Emond at (202) 358-1686 or e-mail to: john.emond@hq.nasa.gov

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